

SUMMARY

Pennahia anea or Donkey Croaker belong to Sciaenidae Family. *P. anea* have a high economic value and have the potential to be cultivated. The morphology of the male and female individuals of *P. anea* could be distinguished using truss morphometric technique and meristic characters. No study is available on the distinguishing of male and female *P. anea* using truss morphometric and meristic characters. This study aim to (1) describe truss morphometric and meristic characters of male and female individuals of Donkey Croaker (*Pennahia anea*); (2) determine the truss morphometric and meristic characters that can distinguish male and female of Donkey Croaker (*Pennahia anea*).

This study used a survey method. The fish samples were taken using purposive random sampling in Fish Auction Center (TPI) Asemdayong Pemalang by a research team chaired by Dr. Suhestri Suryaningsih, M.S. The observed variables were truss distance and meristic characters. The parameters were all truss distances between the truss points on the body, compared with the standard length to obtain a constant value even though the observed fish size varies. Meristic parameters consisted of the number of gill rakers, the number of hard and soft rays on the dorsal, caudal, anal, ventral, and pectoral fins, the number of scales on the lateral line, the number of scale above the lateral line, and the number of scale under the lateral line. The difference between male and female individuals was obtained from statistical analysis for nonparametric data "Mann-Whitney test" using SPSS software.

A total of 31 truss morphometric characters were obtained during the study. Seven out of the 31 characters could distinguish male and female of *P. anea*, i.e. A1, A3, B4, C8, C9, D3, and D5. The A1 character was the distance between the base points of the lower jaw and the tip of the snout. The A3 character was the distance between the tip of the snout and ventral part of the border between the head and body. The B4 was the distance between the front base of the 1st dorsal fin and ventral part of the border between head and body. It was observed that male individual has a shorter distance than female individual for those three truss characters. In contrast, male individual has longer truss distance than female individual for C8, C9, D3, and D5 truss characters. The C8 character was the distance between the back base of the 2nd dorsal fin and the midway between the ventral and anal fin. The C9 character was the distance between the back base of the 2nd dorsal fin and the front base of the anal fin. The D3 character was the distance between the dorsal folds of the tail and the front base of the anal fin. Character D5 was the distance between the front base of the anal fin and the back base of the anal fin. Male and female individuals of *P. anea* could be also be distinguished based on the number of soft fin rays on the ventral fin. It can be concluded that truss distances and meristic characters can be used to distinguish the male and female individuals of *P. anea*. Hopefully, this research could provide basic data about Donkey Croaker (*Pennahia anea*) that useful for fisheries management of that species.

Keyword : female, male, meristic, *Pennahia anea*, truss morphometric